

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Advanced Television Systems	)	
and Their Impact Upon the	)	MM Docket No. 87-268
Existing Television Broadcast	)	
Service	)	

**FOURTH FURTHER NOTICE OF PROPOSED RULE MAKING**  
**AND**  
**THIRD NOTICE OF INQUIRY**

Adopted: July 28, 1995;

Released: August 9, 1995

Comment Date: October 18, 1995

Reply Comment Date: December 4, 1995

By the Commission: Chairman Hundt, Commissioners Quello, Barrett, Ness, and Chong  
issuing separate statements.

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## I. INTRODUCTION

1. With this Fourth Further Notice of Proposed Rule Making and Third Notice of Inquiry ("Notice"), we continue the process of moving toward the next era of broadcast television: *digital* broadcast television. In previous orders in this Advanced Television ("ATV")<sup>1</sup> proceeding, our focus was on fostering the development of High Definition Television ("HDTV").<sup>2</sup> With that focus we made a series of decisions regarding, among other things, the nature of the ATV service, eligibility for ATV transition channels, and the transition period. Technological evolution now obliges us to revisit some of those decisions and consider new information, which we do in this document. We tentatively conclude that many of our previous decisions -- such as our decisions that initial eligibility for ATV transition channels should be limited to existing broadcasters -- remain sound, even under the changed circumstances. We believe that a few decisions, however, require renewed consideration, such as our requirement that broadcasters must ultimately use the transition channel primarily for HDTV. In this document, we ask for comment on these and other issues. Our overarching goal is to ensure that the introduction of digital television fully serves the public interest.

## II. BACKGROUND AND SUMMARY

### A. Summary

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<sup>1</sup> Advanced Television ("ATV") refers to any television technology that provides improved audio and video quality or enhances the current NTSC television system. Memorandum Opinion and Order/Third Report and Order/Third Further Notice of Proposed Rule Making in MM Docket No. 87-268, 7 FCC Rcd 6924, 6925 n. 1 (1992). ("Third Report/Further Notice").

<sup>2</sup> High Definition Television offers approximately twice the vertical and horizontal resolution of NTSC, which is a picture quality approaching 35 millimeter film, and has sound quality approaching that of a compact disc.

2. Ever since the late 1920's when experimental station permits were first issued, television broadcasting has had significant impact on American society. Free, over-the-air, universal broadcast television has served the public well. It has made accessible to virtually every American a range of programming, from news of international importance to events of local significance, as well as, of course, many hours of entertainment.

3. The broadcast television service has seen a number of significant developments in the past half-century, including the allocation of UHF channels and the introduction of color broadcasting. When we began this proceeding in 1987, we believed that we were on the cusp of another similar development, the introduction of a major technical improvement in picture quality over the current NTSC<sup>3</sup> television system -- High Definition Television. But the genius of the engineers who have labored to produce the technical advances and system developments of the past few years has opened the door to an even more dramatic change in the nature of the broadcast television service: the introduction of a dynamic and flexible digital broadcast television technology.

4. Digital encoding and transmission technology has evolved and matured to the point where we are confident that it would not only permit the broadcast of a digital High Definition Television signal over a 6 MHz channel, but that it would also allow for an array of additional alternative uses. The current state of the art, which reflects advances in digital technology and, in particular, use of digital compression technology and a packetized transport scheme, allows for multiple streams, or "multicasting," of Standard Definition Television ("SDTV")<sup>4</sup> programming at a quality at least comparable to, and possibly better than, the current analog signal. It allows for the broadcast of literally dozens of CD-quality audio signals. It allows for the rapid delivery of huge amounts of data; an entire edition of the local daily newspaper could be sent, for example, in less than two seconds. It allows broadcasters to send, simultaneously, video, voice and data. In addition, it allows broadcasters to provide a range of services dynamically, that is, it allows them to switch easily and quickly from one type of service to another. For example, a broadcaster could transmit a news program consisting of four separate, simultaneous SDTV program streams for local news, national news, weather and sports; then transmit an HDTV commercial with embedded data about the product; then transmit a motion picture in an HDTV format simultaneously with unrelated data.

5. The broadcast industry, including equipment manufacturers, has been at the forefront of developing digital technology for television. Direct Broadcast Satellite (DBS) is

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<sup>3</sup> "NTSC" is the current, analog television system, named for the National Television System Committee, an industry group that developed the monochrome television standard in 1940-1941 and the color television standard in 1950-1953.

<sup>4</sup> Standard Definition Television ("SDTV") is a digital television system in which picture quality is approximately equivalent to the current NTSC television system.

already transmitting with digital technologies, with SDTV-type quality. Other service providers are actively exploring the introduction of digital transmission technologies. These events, coupled with the technological developments described above, have given rise to greater confidence in the practical feasibility of dynamic transmission of multiple streams of information and changed the equation that yielded the decisions contained in our 1992 order. Revisiting our earlier decisions is consistent with our statutory responsibility to "encourage the provision of new technologies and services to the public," 47 U.S.C. § 157, as well as with our general statutory obligation to promote the public interest, since these developments have the potential to provide profound benefits to the American public. Accordingly, we issue this Notice to explore how to ensure that the introduction of digital broadcast television furthers the public interest in all respects.

6. In deciding what rules should govern the transition to digital television, we recognize our obligation to manage the spectrum efficiently and in the public interest and to take account of the legitimate interests of all those with a stake in that transition. With the foregoing considerations in mind, we will pursue and balance the following goals in this proceeding: 1) preserving a free, universal broadcasting service; 2) fostering an expeditious and orderly transition to digital technology that will allow the public to receive the benefits of digital television while taking account of consumer investment in NTSC television sets; 3) managing the spectrum to permit the recovery of contiguous blocks of spectrum, so as to promote spectrum efficiency and to allow the public the full benefit of its spectrum; and 4) ensuring that the spectrum -- both ATV channels and recovered channels -- will be used in a manner that best serves the public interest.

7. As we explain more fully below, recent developments do not change our view that the public interest is best served by affording incumbent broadcasters the means to provide digital advanced television. Permitting broadcasters to transition to digital will ensure recovery of spectrum, to which we remain fully committed. Accordingly, temporary grant of an additional 6 MHz channel for digital broadcasting will be explicitly conditioned on, among other things, return of one of the channels at the end of the transition period. We invite comment on whether we should require that broadcasters also change their channels at the end of the transition period, so that the spectrum that will ultimately be recovered can be aggregated into *contiguous* blocks, thereby increasing its potential value for new, as yet undefined, uses.

8. While recent developments do not change our view that existing broadcasters should be provided temporary use of an additional 6 MHz channel to permit a transition to digital technology without immediate loss of service to the NTSC-viewing public, they do change our view about what, if any, restrictions should apply to use of the second channel. Therefore, in this Notice, we ask what limits should be placed on use of the ATV channel.

9. Broadcasters are now subject to a number of public interest requirements, including the obligation to air issue-responsive programming, children's educational and informational programming, and to provide access to candidates for federal office. These public interest

requirements were developed for the analog world, in which each broadcast licensee could do no more than send one signal over its single channel. Digital technology allows each broadcast licensee to send several streams of video programming simultaneously, as well as a mix of video and non-video services. The technology also raises the possibility that a broadcaster can send a mix of subscription and non-subscription services. In this Notice, we ask for comment on how the conversion to digital broadcasting should affect broadcasters' public interest obligations.

10. With consumer interests in mind, the Notice revisits the issue of simulcasting, as it must if broadcasters will be permitted to multicast. We ask whether we should impose a modified simulcast requirement, under which an ATV licensee would be required to simulcast the programming presented on the NTSC channel (with the exception of commercials and promotions) on a program service of the ATV channel. Further, we revisit the issue of the transition period. In setting transition rules, we must balance the benefits of a rapid conversion to digital technologies with our concerns over the number of households that continue to rely on NTSC transmission. In so doing, we also take note of continuing technological advances and other factors that may result in a decline in the cost of receiver and converter prices. We invite comment on what objective benchmark(s) we could use to determine when to require broadcasters to cease NTSC transmissions and surrender one of their 6 MHz channels and on what mechanisms, other than the date certain approach we adopted in 1992, would create incentives for rapid adoption of ATV by consumers, broadcasters, manufacturers and others.

11. In sum, this Notice invites comment on a wide range of issues with respect to the conversion by television broadcasters to digital television, including some not addressed in the foregoing discussion. Our free over-the-air television service is a critical national medium and resource, and the issues raised in this proceeding are central to the direction that medium will take in the twenty-first century. The advent of digital technology promises a quantum leap in the benefits that may be derived from television service. Accordingly, we invite commenters to provide us with their views and available data with respect to the issues raised in this Notice, as delineated in detail below, to ensure that the rules we fashion in this proceeding serve the goals that we have identified above and the public interest in general.

## B. Technological Developments

12. This proceeding began in 1987, when we issued our first inquiry into how to foster ATV services. At that time we stated that our goal was to promote the development of advanced television that would deliver television service to the public with greatly enhanced visual and aural clarity.<sup>5</sup> In the fall of 1987, a few months after initiating this rule making proceeding, we established the Advisory Committee on Advanced Television Service

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<sup>5</sup> Notice of Inquiry in MM Docket No. 87-268, 2 FCC Rcd 5125, 5127 (1987) ("First Inquiry").

("Advisory Committee") to provide recommendations concerning technical, economic and public policy issues associated with the introduction of ATV service.<sup>6</sup> We first made the provision of HDTV services a goal in 1990.<sup>7</sup>

13. Over the past eight years, we have issued a number of Notices concerning ATV and, based upon the comments received, have made a number of decisions.<sup>8</sup> For example, we previously decided "that an ATV system that transmits the increased information of an ATV signal in a separate 6 MHz channel independent from an existing NTSC channel will allow for ATV introduction in the most non-disruptive and efficient manner."<sup>9</sup> While not further defining the service that could be provided on the ATV system, we expected that programming on the ATV channel would "take full advantage of ATV technical capabilities."<sup>10</sup> We contemplated that ATV would be used to provide the HDTV service mentioned above -- a single channel of television with considerably enhanced visual and aural qualities over those of NTSC analog service.

14. Our previous decisions recognized that ATV might allow for such innovations as a choice of camera angles for viewers. Also, we believed that, in addition to HDTV, the ATV system could be used to provide services analogous to the ancillary uses of NTSC broadcast signals such as the use of the Vertical Blanking Interval ("VBI"), Subsidiary Communications Authorizations ("SCA"), and Second Audio Programming ("SAP"). These services, we continued, could be used for revenue raising purposes.<sup>11</sup> However, because we did not want such ancillary uses to predominate over the primary HDTV use of the channel, we sought comment on whether we should require some minimum operating schedule for ATV and deferred further defining of "ATV programming" until we had "the benefit of a

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<sup>6</sup> The Advisory Committee, chaired by former FCC Chairman Richard Wiley, consists of a twenty-five member parent committee, a Steering Committee, and three Subcommittees.

<sup>7</sup> First Report and Order in MM Docket No. 87-268 ("First Order"), 5 FCC Rcd 5627 (1990).

<sup>8</sup> First Inquiry, *supra*. See also Tentative Decision and Further Notice of Inquiry in MM Docket No. 87-268, 3 FCC Rcd 6520 (1988) ("Second Inquiry"); First Order, *supra*; Notice of Proposed Rule Making in MM Docket No. 87-268, 6 FCC Rcd 7024 (1991) ("Notice"); Second Report and Order/Further Notice of Proposed Rule Making in MM Docket No. 87-268, 7 FCC Rcd 3340 (1992) ("Second Report/Further Notice"); Second Further Notice of Proposed Rule Making in MM Docket No. 87-268, 7 FCC Rcd 5376 (1992) ("Second Further Notice"); Third Report/Further Notice, *supra*.

<sup>9</sup> Third Report/Further Notice, *supra* at 6926; see also First Order, *supra* at 5627-29.

<sup>10</sup> Third Report/Further Notice, *supra* at 6980.

<sup>11</sup> Id. at 6981.

record on other types of advanced technology that might be appropriately permitted on the ATV channel."<sup>12</sup>

15. Since we issued our last decision in this matter, significant developments have occurred. At the time of our last decision in this matter, there were five competing HDTV systems under evaluation by the Advisory Committee. In February of 1993, the Advisory Committee reported that a digital HDTV system was achievable, but that all four competing digital systems would benefit significantly from further development and none would be recommended over the others at that time.<sup>13</sup> In May of 1993, seven companies and institutions that had been proponents of the four tested digital ATV systems joined together in a "Grand Alliance"<sup>14</sup> to develop a final digital ATV system for the standard.

16. The Grand Alliance, in cooperation and consultation with the Advisory Committee, has now developed a single digital system incorporating the best performance features of the four previous digital systems and improving upon the designs of those systems.<sup>15</sup> Rather than being limited to transmitting one HDTV service, a fully digital system, such as that developed by the Grand Alliance, can provide one HDTV service, several SDTV services, or a host of non-broadcast services alone or in combination with broadcast services. The system flexibility also permits switching among functions as needed.

17. The Advanced Television Systems Committee (ATSC)<sup>16</sup> has documented the Grand Alliance system in its "Digital Television Standard For HDTV Transmission." That

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<sup>2</sup> Id. at 6981.

<sup>13</sup> ATV System Recommendation of the FCC Advisory Committee on Advanced Television Service (February 24, 1993) ("ATV System Recommendation").

<sup>14</sup> The members of the Grand Alliance are AT&T, General Instrument Corporation, Massachusetts Institute of Technology, Philips Electronics North America Corporation, Thomson Consumer Electronics, The David Sarnoff Research Center, and Zenith Electronics Corporation.

<sup>15</sup> In March of this year, the Grand Alliance completed construction of its prototype system and delivered it to the Advanced Television Test Center for testing by the Advisory Committee. The Advisory Committee expects to submit to us its final recommendation on the ATV standard later this year.

<sup>16</sup> ATSC was formed by the member organizations of the Joint Committee on InterSociety Coordination ("JCIC") for the purpose of exploring the need for and, where appropriate, to coordinate development of the documentation of ATV systems. The JCIC is composed of the Electronic Industries Association, the Institute of Electrical and Electronics Engineers, the National Association of Broadcasters, the National Cable Television Association, and the Society of Motion Picture and Television Engineers.

standard includes discrete subsystem descriptions for video source coding and compression, audio source coding and compression, service multiplex and transport, and RF/transmission. It has been developed from the "Digital HDTV Grand Alliance" proposal to the Advisory Committee. The standard documents the system's ability to deliver one HDTV video program, one or more associated audio services, data for ancillary services and other services as may be developed. Although the Grand Alliance system was not designed to include SDTV, broadcasters have indicated a substantial interest in it. The Grand Alliance system appears capable of supporting multiple SDTV services, and, accordingly, the ATSC's Technology Group on Distribution (T3) voted to recommend a revision of the standard to include SDTV video formats that are consistent with the Grand Alliance HDTV system. The revision is currently being considered under letter ballot by the full ATSC committee.

18. Many aspects of the Grand Alliance system promote compatibility with computer applications and thus enhance its ability to support the National Information Infrastructure ("NII"), an important feature in guiding our deliberations. The Grand Alliance has employed a layered, all-digital architecture, including a transport scheme that is based on the widely-accepted MPEG-2 standard.<sup>17</sup> Compatibility with computers is also aided by the Grand Alliance system's use of square pixels in most scanning formats and support for progressive scan video inputs and progressive compression formats.<sup>18</sup> The Grand Alliance system accommodates both progressive and interlaced scanning by defining a variety of transmission formats which can be converted as required on a display chosen by consumers based on their specific requirements. In these ways, the Grand Alliance has attempted to accommodate computer industry concern, which has earned widespread support from that industry.<sup>19</sup>

19 It has become apparent that the flexibility of the Grand Alliance system will allow for more applications and alternative uses than we had previously contemplated. This causes us to revisit some of our assumptions and to re-evaluate a number of our prior decisions. We are issuing this Fourth Further Notice of Proposed Rule Making and Third Notice of Inquiry to invite comment on several aspects of this changed ATV environment and their ramifications for this proceeding. We also expect to issue another Notice after we receive a recommendation concerning an ATV standard from the Advisory Committee; and an additional Notice proposing an ATV Table of Allotments and assignment methodology. Barring any unforeseen difficulties, we intend to prepare each of these Notices expeditiously and to act promptly upon our receipt of responsive comments.

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<sup>17</sup> ISO/IEC IS 13818-1, International Standard (1994), MPEG-2 Systems and ISO/IEC IS 13818-2, International Standard (1994), MPEG-2 Video. ISO/IEC is the International Organization for Standardization/International Electrotechnical Commission.

<sup>18</sup> See ATV System Recommendation, supra at 4-4, 8-11 and Glossary.

<sup>19</sup> "Report on the Workshop on Advanced Digital Video in the National Information Infrastructure," NISTIR 5457, U.S. Department of Commerce, Technology Administration, National Institute of Standards and Technology, July, 1994.



### III. ISSUES

#### A. Spectrum Issues.

20. Previous Decision. The Commission previously decided that ATV would be introduced by assigning existing broadcasters a temporary channel on which to operate an ATV station during a transition period and that the spectrum needed for the transition would be obtained from the spectrum currently allocated to broadcasting.<sup>20</sup> The transition was premised on avoiding a severe disruption to existing service, as both broadcasters and consumers would have to obtain new equipment to enable them to provide and enjoy, respectively, the benefits of ATV service.<sup>21</sup> Moreover, the Commission decided that, for reasons of spectrum efficiency, any ATV system would have to "transmit the increased information of an HDTV signal in the same 6 MHz channel space used in the current television channel plan."<sup>22</sup>

21. Discussion. As noted above, the transmission system has been designed for a 6 MHz channel and the Grand Alliance has achieved remarkable results in developing a system with great capability and flexibility that can operate within this confine. We thus continue to believe that providing 6 MHz channels for ATV purposes represents the optimum balance of broadcast needs and spectrum efficiency. We invite comment, however, on any means of achieving greater spectrum efficiency.

#### B. Definition of Service

22. As the next generation of television -- digital television -- moves from the drawing board into American homes, we reaffirm in this proceeding our intention to preserve and promote universal, free, over-the-air television. Broadcast television has become an important part of the fabric of our society by making available to every American a vast array of programming, including news, public affairs, educational, and entertainment programming. In order to ensure that broadcast television has the opportunity to grow and compete against alternative video providers, we envision that the 6 MHz channel earmarked for ATV will be used for free, over-the-air broadcasting.

23. The digital transmission system designed by the Grand Alliance, as currently

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<sup>20</sup> See Second Inquiry, *supra* at 6521.

<sup>21</sup> See generally Second Report/Further Notice, *supra* at 3353-55.

<sup>22</sup> First Order, *supra* at 5628. Although commenting parties proposed different spectrum requirements ranging from 6 MHz to 12 MHz per station, we tentatively concluded that "systems requiring more than 6 MHz to broadcast a noncompatible signal...will not be authorized for terrestrial broadcast service." Second Inquiry, *supra* at 6521.

proposed, would provide broadcasters with new flexibility and new capabilities as they embark on serving the American public with the next generation of television. Broadcasters will be capable of providing through ATV not only a vastly improved high definition picture, but also multiple program streams. In addition, the ATV system is capable of nonbroadcast uses that are nonvideo and/or subscription-based in nature. Allowing at least some level of flexibility would increase the ability of broadcasters to compete in an increasingly competitive marketplace, and would allow them to serve the public with new and innovative services. Flexibility could also allow for a more rapid transition to digital broadcasting. Nonetheless, any flexibility afforded broadcasters must not undermine our American system of universal, free, over-the-air television. In establishing a regulatory framework for the provision of ATV in light of this new flexibility, we therefore seek comment on the following questions:

- Should we require broadcasters to provide a minimum amount of HDTV and, if so, what minimum amount should be required?
- To what extent should we allow broadcasters to use their ATV spectrum for uses other than free, over-the-air broadcasting? We recognize that we currently allow broadcasters to use a portion of their analog spectrum for ancillary and supplementary uses that do not interfere with or detract from their primary broadcast function. Should such uses of the ATV spectrum be permitted and, if so, how should they be defined? What portion of the ATV system's capacity should be allowed to be used for ancillary and supplementary services?
- To what extent should we allow broadcasters to use their ATV spectrum for services that go beyond traditional broadcast television or ancillary and supplementary uses analogous to those allowed under our current regulatory regime? Should broadcasters be permitted to provide nonbroadcast and/or subscription services?<sup>23</sup> If so, how should such services be defined and how much of the ATV system's capacity should be allowed for such uses? If allowed, what regulation, if any, would be appropriate for such services?

24. In responding to the above questions, if commenters propose that licensees be required to meet any requirements (such as a minimum HDTV requirement) or be limited in providing ancillary and supplementary services, they should include comment on the administrative processes we would use to implement any requirements or limitations. For instance, how should we measure use -- by the amount of time, data packet "headers," or by

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<sup>23</sup> We note that, under our current rules, a licensee may provide video programming primarily on a subscription basis. We also note pending legislative proposals that contemplate granting us the authority to require licensees to pay annual spectrum fees where licensees charge the public for the new services provided on the conversion channels. We will publish a Public Notice or other appropriate document with respect to the effect on our ATV decisions of any relevant law enacted

some other means? Should the time of day when broadcast or other video service is offered have any significance? What administrative process should we use to enforce such a requirement -- self reporting, complaints from the public, operating logs, etc. -- and what costs would be associated with each?

### C. Eligibility Issues.

25. Previous Decision. In the Second Report/Further Notice the Commission established that during the initial period, existing broadcasters would have the first opportunity to acquire ATV channels. Included in the class of existing broadcasters were: a) all full-service television broadcast station licensees; b) permittees authorized as of October 24, 1991, the date of adoption of the Notice in this proceeding; and c) all parties with applications for a construction permit on file as of October 24, 1991, who are ultimately awarded full-service broadcast station licenses.<sup>24</sup>

26. The eligibility determination was premised on the expectation that HDTV would be a single channel method of delivering higher picture and sound quality. The Commission previously set forth several reasons for limiting initial eligibility to existing broadcasters. These included:

- "[E]xisting broadcasters' continued involvement in ATV is the most practical, expeditious, and non-disruptive way to bring improved service to the American public. [Footnote omitted.] Existing broadcasters possess the know-how and experience necessary to implement ATV swiftly and efficiently. They have invested considerable resources in the present system and represent a large pool of experienced talent. As initial participants in the transition to ATV, existing broadcasters will be making an appreciable capital investment in this new technology and will undertake the business risks associated with being in the forefront of such new developments."<sup>25</sup>

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<sup>24</sup> Later, in the Third Report/Further Notice, the Commission established that, in the event of a spectrum shortfall, eligible parties would be ranked in the following order: 1) licensees and permittees with constructed facilities having program test authority; 2) other permittees; and 3) all parties with an application for a construction permit pending as of October 24, 1991. In the event that we were not able to accommodate all eligible existing broadcasters with an ATV channel, there are other options, such as switching directly to ATV service at some point during or at the end of the transition period without first requiring a period of operation by the broadcaster of both an NTSC and an ATV facility. We will address this issue in the context of our subsequent Further Notice of Proposed Rule Making on the ATV Table of Allotments.

<sup>25</sup> Second Report/Further Notice, supra at 3343.

- Setting an eligibility standard avoids the delay that would be caused by allowing a wider pool to apply and having to hold comparative hearings. Limiting eligibility, at least for the initial period, is the most practical, expeditious, and non-disruptive way to bring about improved service.<sup>26</sup>
- Defining eligibility allows the Commission to establish an orderly transition period, with the end result being the recovery of a block of spectrum.<sup>27</sup>

We also noted that the exclusive initial eligibility period would last only a brief period of time and would not indefinitely impede new entrants.<sup>28</sup> We view the process as one in which broadcasters will engage in an exchange of spectrum: the temporary use of two channels to ensure continued service to the NTSC-viewing public, with the certain return of one of those channels no later than the end of the transition period. The recovered spectrum will be available for broadcast or other services as we shall determine in the future.

27. Discussion. We continue to believe that initial eligibility should be limited to existing broadcasters given the shortage of suitable spectrum and our decision not to allocate additional spectrum for this purpose. We are still asking existing broadcasters to inaugurate a television service that will deliver a signal of superior quality.<sup>29</sup>

28. Furthermore, we are not creating a new service, and our eligibility restriction does not ultimately result in more spectrum for broadcasters or less spectrum for others. We are merely moving each existing broadcaster from one channel to a different channel in a one-for-one exchange designed to accomplish a number of long-term public interest goals.<sup>30</sup>

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<sup>26</sup> Id. at 3342.

<sup>27</sup> Id. at 3343.

<sup>28</sup> Id.

<sup>29</sup> For instance, a digital TV signal will provide viewers with the same video quality throughout the digital TV station's service area. This is different from today's analog TV transmissions, where the video quality normally is degraded for viewers located farther from the transmitter, near the edge of the service area.

<sup>30</sup> There is ample precedent for our reallocation of spectrum in the public interest, even where such reallocation results in displacement of current users of the spectrum, and it is clear that we have broad discretion to do so. Indeed, the Court of Appeals has recognized our broad discretion to make spectrum allocation and reallocation decisions. NARUC v. FCC, 525 F.2d 630, 636 (D.C. Cir. 1976), cert. denied, 425 U.S. 992 (1976). See NAB v. FCC, 740 F. 2d 1190, 1209-10 (D.C. Cir. 1984). (FCC has authority to prefer one service over another). WLVA, Inc. v. FCC 459 F. 2d 1286, 1303 (D.C. Cir. 1972) (it is for the Commission, not the Courts, to pass on a channel allocation scheme); Coastal Bend

Broadcasters will be required to cease their analog operations after a relatively short period, thereby permitting a swift, certain transition to digital technology and a rapid recovery of spectrum for the benefit of the public.

29. We believe that we are not precluded by Ashbacker Radio Corp. v. FCC, 326 U.S. 327 (1945), from limiting initial eligibility to incumbent broadcasters, even if we permit flexible use of the digital system and especially since the broadcasters' "analog" operations will be shut down and one of the channels will be relinquished.<sup>31</sup> Under Section 309 of the Communications Act, as applied by the Supreme Court in United States v. Storer Broadcasting Co.,<sup>32</sup> we are authorized to set licensee eligibility standards.<sup>33</sup> As an independent matter, we note that we also have authority under Section 316 of the Communications Act, 47 U.S.C. § 316, to modify existing licenses as the public interest requires. In so doing, our actions are not governed by the hearing and other requirements of Section 309 of the Act.<sup>34</sup> In light of our authority under both Storer and Section 316 of the Act, we invite comment on our tentative conclusion that no Ashbacker problem is presented by our proposals.

30. While we reiterate our tentative conclusion to limit initial eligibility for ATV

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Television Co. v. FCC, 234 F. 2d 686, 690 (D. C. Cir. 1956) (same). We have, in a number of contexts, moved users of spectrum to different bands.

<sup>31</sup> The Court of Appeals has held that Ashbacker applies only to parties whose applications have been declared mutually exclusive and does not apply to "prospective applicants." Reuters Ltd. v. FCC, 781 F.2d 946, 951 (D.C. Cir. 1986). No Ashbacker rights would be triggered because we are defining the category of eligible applicants rather than rejecting one bona fide applicant without comparing it to the others.

<sup>32</sup> 351 U.S. 192 (1956).

<sup>33</sup> In Storer, the Court held that the Commission's promulgation of rules limiting eligibility to apply for a broadcast license does not violate the applicant's right to a hearing. Accord, Aeronautical Radio, Inc. v. FCC, 928 F.2d 428, 439 (D.C. Cir. 1991) (the Commission may reject, without a hearing, applications that do not meet valid eligibility requirements). Indeed, in a number of other contexts we have concluded that we are not precluded by Ashbacker from establishing initial eligibility criteria in the public interest. See Notice of Proposed Rule Making in PR Docket No. 93-144, 8 FCC Rcd 3950, 3955 & n. 46 (1993); Amendment of the Commission's Rules to Permit FM Channel and Class Modifications by Application, 8 FCC Rcd 4735, 4738-39 (1993).

<sup>34</sup> Section 316 does not require us to accept petitions to deny an application filed as a result of a proposed modification, but it does require us to consider protests filed by other licensees or permittees who believe their own licenses or permits would be modified by the Section 316 modification. See 47 U.S.C. § 316(a)(3).

frequencies to existing broadcasters, we seek comment on the potential impact our proposal would have on the Commission's long standing policy of fostering programming and ownership diversity. Specifically, we seek comment on what measures, if any, the Commission may adopt to include new entrants into this emerging era of digital television.

31. Some parties have suggested that we should auction the spectrum intended to be used for ATV service. Section 309(j) of the Communications Act of 1934, as amended, limits the uses of spectrum that is subject to being auctioned. It specifically requires that, "the principal use of such spectrum will involve, or is reasonably likely to involve, the licensee receiving compensation from subscribers...." Our experience and our judgment concerning market conditions lead us to believe that the broadcasters would use this spectrum for free over-the-air broadcast service; therefore, it cannot be auctioned under Section 309(j). For this reason, as well as those set forth above, we reiterate our previous decision to limit initial eligibility to existing licensees. Commenters may address whether any changed circumstances should alter this conclusion.

32. Finally, given our decision not to allocate additional spectrum for television broadcasting, the number of transition channels is limited. Therefore, we also solicit comment on granting eligibility status to those broadcasters that are in bankruptcy, off-the-air, have construction permits or are otherwise non-operational, or otherwise incapable of engaging in the transition to digital television. We specifically request comment on whether the transition channels identified for these licensees or permittees would be better used to support service to the public if instead they were made available to new entrants.

#### D. Public Interest Obligations

33. **Previous Decisions.** Our rules imposing public interest obligations on broadcast licensees flow from the statutory mandate that broadcasters serve the "public interest, convenience and necessity,"<sup>35</sup> as well as other provisions of the Communications Act. Broadcasters are required to air programming responsive to community needs and interests.<sup>36</sup>

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<sup>35</sup> 47 U.S.C. § 307(c). See also *id.* § 307(a).

<sup>36</sup> See En Banc Programming Inquiry, 44 FCC 2303, 2312 (1960). Toward that end, broadcasters are required to maintain lists of programs aired addressing community issues. 47 C.F.R. §§ 73.3526(a)(8) & (9). Service to the community of license is also considered in determining whether a broadcaster's license should be renewed. See, e.g., Cowles Broadcasting, Inc., 86 FCC 2d 993 (1981), *aff'd sub nom. Central Florida Enterprises, Inc. v. FCC*, 683 F.2d 503 (D.C. Cir. 1982). In 1984, the Commission eliminated quantitative guidelines under which uncontested renewal applications demonstrating less than 10 percent non-entertainment programming could not be routinely processed by staff. Revision of Programming and Commercialization Policies, Ascertainment Requirements, and Program Log Requirements for Commercial Television Stations, Report and Order, 98 FCC 2d 1076 (1984).

They are required to air programming designed to "serv[e] the educational and informational needs of children."<sup>37</sup> They must provide "reasonable access" to candidates for federal elective office, and must afford "equal opportunities" to candidates for any public office.<sup>38</sup> Broadcasters are also obliged to refrain from airing certain programming, such as indecent programming outside the "safe harbor" period.<sup>39</sup> Finally, in order to promote diversity of viewpoint, broadcasters must refrain from discriminating in employment and must establish and maintain an equal employment opportunity ("EEO") program designed to provide equal employment opportunities for minorities and women.<sup>40</sup> Our previous orders reflect the assumption that public interest obligations would attach to ATV broadcasting. Indeed, that broadcasters "have an obligation to serve the public interest" is one of our reasons for limiting initial eligibility for ATV channels to existing broadcasters.<sup>41</sup>

34. Request for Comment. We remain committed to enforcing our statutory mandate to ensure that broadcasters serve the public interest. Our current public interest rules, including those implementing specific statutory requirements, were developed for broadcasters essentially limited by technology to a single, analog video programming service. The potential for more flexible and dynamic use of the advanced television channel than what broadcasters currently enjoy gives rise to important questions about the nature of public interest obligations in the digital broadcasting world. We request comment on how the conversion to digital broadcasting should affect broadcasters' obligation to serve the public interest.

35. Our future rules may allow broadcasters to use their advanced television channels to provide a high definition television service, multiple standard definition television services and perhaps other services, some of which may be on a subscription basis. Should a

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<sup>37</sup> 47 U.S.C. § 303(b), 47 C.F.R. § 73.671. We recently issued a Notice of Proposed Rule Making requesting comment on a number of proposals to amend our rules implementing the Children's Television Act of 1990. Notice of Proposed Rule Making in MM Docket No. 93-48, FCC 95-143 (released April 7, 1995). We will incorporate relevant comments filed in MM Docket No. 93-48 into the record of this proceeding.

<sup>38</sup> 47 U.S.C. § 312(a)(7), 47 C.F.R. § 73.1944 (reasonable access); 47 U.S.C. § 315; 47 C.F.R. § 73.1941 (equal opportunities). See also 47 C.F.R. § 73.1920 (personal attack rule); 47 C.F.R. § 73.1930 (right to reply).

<sup>39</sup> 18 U.S.C. § 1464; 47 U.S.C. § 303; 47 C.F.R. § 73.3999. The United States Court of Appeals for the District of Columbia Circuit recently upheld a ban on the broadcasting of indecent programs between 6:00 a.m. and 10:00 p.m. See Action for Children's Television v. FCC, No. 93-1092 (D.C. Cir. June 30, 1995).

<sup>40</sup> 47 C.F.R. § 73.2080.

<sup>41</sup> Second Report/Further Notice, *supra* at 3342

licensee's public interest obligations depend on the nature of the services it chooses to provide and, if that is the case, how so? For example, if a broadcaster chooses to provide multiple standard definition services, should public interest obligations attach to each one? What if one or more of those services are provided on a subscription basis? Alternatively, should public interest obligations be seen as attaching not to services but to licensees, each of whom would be required to operate the facilities associated with its 6 MHz ATV channel in the public interest? We note that attaching a public interest requirement on one type of "service" could skew broadcaster investment away from providing that service -- a situation that could potentially result in a net public interest loss. Commenters are requested to discuss whether, if Congress grants the Commission the requisite authority, we should consider imposing spectrum fees for that portion of the spectrum used by broadcasters to provide subscription services. We note that the use of spectrum fees may allow the Commission to establish a regulatory framework that does not discourage broadcasters from providing free over-the-air channels or other services to which public interest obligations might attach. We also invite comment on whether the conversion to digital broadcasting justifies other changes in our public interest framework.

36. Finally, we express our intention to continue to apply EEO requirements on broadcasters. We ask, however, whether there are additional means available to further our objective of promoting diversity of viewpoints in a digital world.

#### E. Transition.

##### 1. Simulcast Requirement.

37. Previous Decision. Previously, we have expressed our belief that maintaining existing service is extremely important, and that the public interest would be served by avoiding any substantial dislocation of service to existing viewers. Accordingly, we determined that ATV licensees should simulcast on their NTSC stations the programming offered on their ATV stations.<sup>42</sup> We preliminarily decided that, beginning one year after the six year application and construction period, ATV licensees would have to simulcast 50 percent of their ATV programming, increasing to 100 percent two years later.<sup>43</sup> Additionally, we indicated that we would review this schedule at the time of our initial review of the pace of conversion at the end of the application/construction period and immediately prior to the imposition of 100 percent simulcasting.<sup>44</sup>

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<sup>42</sup> We defined simulcasting as the broadcast on the NTSC channel of the same basic material broadcast on the ATV channel, excluding commercials and promotions, within 24-hours. Id. at 6978.

<sup>43</sup> See Second Report/Further Notice, supra at 3355, 3357; see also Third Report/Further Notice, supra at 6970-71.

<sup>44</sup> Id. at 6971.



38. Our concern was, and remains, that consumers not be prematurely deprived of the benefits of existing television equipment.<sup>45</sup> We also stated that requiring simulcasting would assist us in reclaiming the analog channel as soon as possible by minimizing broadcaster and consumer reliance on the ATV and NTSC channels carrying separately programmed services.<sup>46</sup> Additionally, we believed that a simulcast requirement would "give added impetus to ATV receiver penetration by eliminating the need for dual mode receivers capable of receiving both NTSC and ATV," thereby helping to lower the cost of ATV receivers, spurring increased penetration.<sup>47</sup>

39. Changed Circumstances and Proposal. These decisions were appropriate and practical at a time when it appeared that ATV would primarily consist of the broadcast of a single HDTV program service. However, it is apparent that a digital TV system can be used in many other ways, including to transmit multiple simultaneous SDTV program services. A licensee may, for instance, utilize its ATV channel to air four SDTV program services. Obviously, that licensee would be unable to simulcast all four program services on its NTSC channel. Under such circumstances, it is clear that our simulcasting requirement must be revisited and we must consider alternatives.

40. As stated above, the simulcasting requirement was in large measure intended to allow consumers to avoid being prematurely deprived of the benefits of their NTSC video equipment. We hoped to avoid having broadcasters move their best programs to HDTV, with the result that large numbers of viewers that do not have HDTV equipment would lose much of the value of broadcast television service. At the present time, this no longer appears to be a likely prospect. We do not foresee broadcasters taking their best programming off of their NTSC stations and putting it on HDTV where potential audiences will, at first, be small. Similarly, we do not see broadcasters moving their best programming off of NTSC and on to ATV early in the conversion process. We believe that, instead, the market will continue to serve consumer demand by assuring the continued presence of good programming on NTSC channels. However, we still perceive a need for a simulcast requirement, albeit different from that first envisioned.

41. Some number of consumers, unaware of the transition to digital television or unable to afford replacement equipment, may continue viewing analog television throughout the transition period. At the end of the transition period, we may be confronted with the choice of either terminating analog service, causing such viewers to lose their only source of free broadcast service, or, alternatively, allowing analog broadcasting to continue, thereby depriving the broad general public of the benefits that we believe are to be found from the

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<sup>45</sup> Second Report/Further Notice, *supra* at 3355; Third Report/Further Notice, *supra* at 6970-72.

<sup>46</sup> *Id.* at 3356.

<sup>47</sup> *Id.* at 3356.

recovery of one of the channels. We wish to avoid either alternative and believe that a simulcasting requirement may be useful in speeding the migration of these consumers from analog to digital broadcasting. Accordingly, we propose to require the simulcast of all material being broadcast on the licensee's NTSC station (with the exception of commercials and promotions)<sup>48</sup> on a program service of the ATV channel. If a program is available only on the analog service, then all viewers (those with digitally capable and analog-only sets) will need to watch it in the analog service. In a simulcast environment, the number of consumers who will lose access to a specific program service will be reduced by the number who have a digitally capable set or set top converter.<sup>49</sup>

42. We ask parties to comment on this proposal, including assessing its impact on broadcasters' ability to provide HDTV service, and to offer other viable alternatives, keeping in mind our goals of avoiding a reliance on NTSC service and assuring recovery of large blocks of contiguous spectrum at the conclusion of a speedy and smooth transition process. We are open to suggestions and will consider any option that does not slow the conversion to digital television. For instance, commenters may wish to comment on whether the simulcast requirement should be tradeable. That is, should a licensee be permitted to purchase time on a competitor's ATV station on which to broadcast its analog programming?

43. Also, we seek comment on the phasing in of a simulcasting requirement. We believe that at the beginning of the transition a broadcaster should be required to simulcast little or no NTSC programming. Few viewers would have ATV receivers at that stage. Later, as fewer consumers depend upon analog television and ATV equipment proliferates, we tentatively believe that the simulcasting requirement should be increased. Commenters are invited to comment on the relevant time periods for each phase and the amount of simulcasting that should be required in each such phase.

## 2. Licensing of ATV and NTSC Stations

44. Previous Decision As a related issue, we must revisit the question of whether licensees' NTSC and ATV station licenses should be considered a single license or two separate and distinct licenses. We previously decided to treat the licensee as having two paired licenses.<sup>50</sup> That is, each licensee's NTSC and ATV station would receive a separate license. Because the licenses were to be paired, however, if a licensee's NTSC license were to be revoked or not renewed while its ATV application was pending, the licensee would lose its priority eligibility status. Also, if either a licensee's NTSC or ATV license were revoked

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<sup>48</sup> As indicated above, both commercial and promotional material were specifically excluded from our original definition of what must be simulcast.

<sup>49</sup> In the "All-Channel Receiver Issues" section, *infra*, we discuss all-channel receiver issues that could possibly minimize or potentially eliminate this potential problem.

<sup>50</sup> Second Report/Further Notice, *supra* at 3344.

or not renewed, the remaining license would automatically suffer the same fate. We nonetheless indicated that we would consider permitting a licensee to voluntarily surrender its NTSC channel while retaining the corresponding ATV channel on a case-by-case basis in the interest of spectrum efficiency

45. We decided that broadcasters would be operating two distinct facilities having different characteristics and, frequently, transmitting from different locations. Treating the ATV and NTSC channels as separately licensed facilities would, we concluded, simplify enforcement and administration. However, we paired the two licenses to prevent the separate transfer of one channel of the pair because we believed that would make it impossible to recapture one of the 6 MHz channels at the end of the transition period and still leave the existing licensee with a broadcast outlet.<sup>51</sup>

46. Changed Circumstances and Request for Comments. We tentatively conclude that substantial benefits could be obtained if, instead of licensing the NTSC and ATV facilities separately, we authorized both under a single, unified license. It would ease administrative burdens on the Commission and broadcasters alike by reducing the number of applications that would have to be filled out, filed and processed. Licensing the two facilities under a single authorization is also consistent with our view that the authorizations may be issued pursuant to our broad authority under Section 316 of the Act to modify an existing license. Finally, treating the two facilities under a single license would retain the sound policy announced in the Second Report/Further Notice of treating both facilities the same from the revocation/non-renewal standpoint.<sup>52</sup> We seek comment on this tentative conclusion.

47. Commenters advocating separate licenses for the ATV channels may wish to address whether, if NTSC and ATV licenses were licensed separately, we should allow the sale of an authorization for an unbuilt ATV facility. Allowing such transfers could speed the transition to digital ATV by putting transition spectrum into the hands of parties willing and able to construct ATV facilities. Commenters should be mindful, however, that even if NTSC and ATV licenses were to be issued separately and unpaired the NTSC licensee would have to cease its NTSC operations at the end of the transition period. Moreover, unpairing the NTSC and ATV licenses would raise complex issues regarding simulcast and retransmission/must carry rights. In the event we adopt an NTSC-ATV simulcast requirement, should the transfer of a separated ATV license be permitted only if the programming on the accompanying NTSC license were simulcast in digital?

#### F. Transition Period.

48. Previous Decision In the Third Report/Further Notice we made a preliminary

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<sup>51</sup> Second Report/Further Notice, *supra* at 3344.

<sup>52</sup> Second Report/Further Notice, *supra* at 3344.

decision to establish a transition period that concludes 15 years from the date of adoption of an ATV system or a final Table of ATV Allotments is effective, whichever is later.<sup>53</sup> In addition, we adopted a schedule of periodic reviews to permit us to monitor the progress of ATV implementation and to make any necessary adjustments. We decided that the transition period should not be modified without a substantial showing that the change is in the public interest. We reiterated that we planned to award broadcasters interim use of an additional 6 MHz channel to permit a smooth, efficient transition to an improved technology with as much certainty and as little inconvenience to the public and the industry as possible. Finally, we clarified that, in general, broadcasters who do not convert to ATV will nevertheless have to cease broadcasting in NTSC at the end of the 15-year transition period.

49. We stated that the establishment of a firm date for full transition to digital transmission technologies would be in the public interest because it would keep administration simple, assure progress toward freeing spectrum on a timely basis, and give affected parties the benefits of a clearly defined planning horizon.<sup>54</sup> At the time, we believed that a 15-year transition period was reasonably supported by the data then available.<sup>55</sup> We recognized, however, that the data upon which we were relying consisted of projections that were subject to change as more information regarding ATV was obtained. Therefore, we established a series of periodic reviews to avoid making an inflexible decision that may be overtaken by future events.<sup>56</sup> We also stated that should the periodic reviews demonstrate that the transition period should be advanced, we would consider accelerating the deadline.<sup>57</sup>

50. Changed Circumstances and Request for Comments. At this juncture, there may be reasons to expect that broadcasters will adopt ATV more rapidly than was anticipated in 1992, when we last analyzed the transition period. The broadcast industry, including equipment manufacturers, have been at the forefront of developing digital technology for television. Direct Broadcast Satellite (DBS) is already transmitting with digital technologies with SDTV-type quality. Cable systems have been aggressively evaluating and investing in digital technology to increase programming capacity, improve picture quality and provide new services to consumers. Wireless cable operators have announced their interest in using digital compression technologies to increase the number of program streams they provide. Other new services, such as "video dialtone," that would use digital transmission technologies are also being initiated or planned. In this environment, broadcasters have added incentive to convert more rapidly in order to remain competitive.

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<sup>53</sup> Second Report/Further Notice, supra at 3353-54.

<sup>54</sup> Second Report/Further Notice, supra at 3353.

<sup>55</sup> Third Report/Further Notice, supra at 6964.

<sup>56</sup> Id. at 6964-65.

<sup>57</sup> Id. at 6968.

51. Consumers will buy or rent digitally capable receivers or set-top converters as their choice of digitally-based video products expands. For each household which transitions to any of the new media, including over-the-air digital, there will be at least one less television set reliant upon over-the-air NTSC analog transmissions. Given the degree of competition that exists between suppliers of electronic equipment, and expected economies of scale resulting from the proliferation of digitally based media, we anticipate that declining costs will translate into reduced prices and increased sales of digital receivers and converters to consumers.

52. We previously cautioned that broadcasters' cessation of NTSC transmission and surrender of a 6 MHz channel would depend on ATV becoming the prevalent medium, stemming in part from our concern over the number of households that might continue to rely on NTSC transmissions.<sup>58</sup> As discussed above, purchase of an ATV receiver or converter is not the only means of ending reliance on NTSC transmission, so projections solely of ATV receiver penetration may not be the most accurate benchmark for deciding when broadcasters should cease NTSC transmission and surrender a 6 MHz channel.

53. We now wish to consider whether some objective benchmark(s) could be used to determine when broadcasters should cease NTSC transmission. Is it possible to end the transition period in a market by tying the transition period to some objective benchmark(s)? If so, what benchmark(s) should be used? The conversion could be considered complete when the number of households that rely on NTSC has fallen to a given percentage. We ask parties to comment on tying the transition period and final conversion date to the percentage of households in a market that rely on NTSC transmission. If the final conversion date is triggered when the number of households that rely on NTSC falls to a given percentage, what should the threshold percentage be that triggers the final conversion date? How would we measure the number of households that rely on NTSC transmission from year to year? Should we measure households or television sets? What other objective benchmarks should we consider in determining the transition period and the final conversion date? To what extent should the availability of inexpensive digital receivers and converters be used as a benchmark in determining the length of the transition period?

54. We previously reasoned that by adopting a target date approach we could speed the transition to digital technologies. Are there mechanisms other than the date certain approach that we adopted in 1992, that we could put in place to create incentives for rapid adoption of ATV by consumers, broadcasters, manufacturers, and others? For example, should we consider having the transition period end at the earlier of a date certain or attainment of an objective benchmark? We seek information on how broadcasters could assist consumers by providing alternate methods of acquiring or leasing digital equipment in the short term so that the transition costs can be reduced and the transition schedule can be shortened. Could broadcasters in a market cooperate in leasing converters and/or ATV

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<sup>58</sup> Second Report/Further Notice, supra at 3353.

receivers to consumers? Would cooperation between broadcasters in a market raise anti-competitive concerns? If so, how could the cooperative arrangements of broadcasters be adapted to reduce household reliance on NTSC transmission without raising these concerns?

#### G. Recovery of Spectrum.

55. Previous Decision. In the Second Report/Further Notice, we put broadcasters on notice that when ATV becomes the prevalent medium, they will be required to surrender a 6 MHz channel and cease broadcasting in NTSC.<sup>59</sup> In the Third Report/Further Notice, we reiterated that we are awarding broadcasters interim use of an additional 6 MHz channel and we clarified that broadcasters who do not convert to ATV will nevertheless have to cease broadcasting in NTSC.<sup>60</sup>

56. The Commission has previously stated that interim use of an additional 6 MHz channel was necessary to permit a smooth, efficient transition to an improved technology. The rationale underlying the recovery of spectrum was the freeing of spectrum of significant value for other uses. The Commission stated that the spectrum to be used for the transition to ATV has significant value for other services and benefits and that any delay in reclaiming the reversion spectrum carries potential costs to the public.<sup>61</sup>

57. Changed Circumstances and Proposal. When the transition to digital technologies is complete, we must have some mechanism in place to recover the extra 6 MHz channel. One option would be to continue renewing licenses for five year periods but explicitly terminate authority to use one of the 6 MHz channels at the end of the transition period. If we were to adopt a "two-license" approach, one of the two licenses could expire at the end of the transition period. We ask parties to comment on the advantages and disadvantages of each approach.

58. We remain committed to the recovery of spectrum. In addition, we believe that spectrum will be of greater value if available in large contiguous nationwide blocks. To create contiguous blocks of spectrum following the transition period, it may be necessary to move some digital broadcast stations to new channels that are contiguous with others. This would have the effect of condensing broadcast assignments to a narrower band of spectrum without eliminating any licenses. Today, television broadcasters have over 400 MHz assigned to them, but NTSC technology does not permit all of the channels to be used in the same geographic area.<sup>62</sup> We believe that the "Grand Alliance" digital system does not have these

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<sup>59</sup> Second Report/Further Notice, *supra* at 3353.

<sup>60</sup> Third Report/Further Notice, *supra* at 6967.

<sup>61</sup> Second Report/Further Notice, *supra* at 3354.

<sup>62</sup> See First Inquiry, 2 FCC Rcd at 5132-34.

difficulties. By moving some digital broadcast stations, we would be able to obtain a more spectrum-efficient arrangement by condensing broadcasting assignments to less than 400 MHz. We believe that information concerning spectrum recovery and moving some digital broadcast stations to new channels should be solicited at this time to assure the future availability of contiguous spectrum and encourage immediate planning and investment in new services. We request comment on our tentative plans to create contiguous blocks of spectrum.

59. While broadcasters have been given notice that they must surrender a 6 MHz channel after full conversion to digital technologies, no final decisions have been made concerning which of the two channels would be surrendered. Allowing licensees to determine which 6 MHz channel they would use for digital transmission and which channel they would surrender may result in broadcasters providing digital services on channels scattered throughout the VHF and UHF broadcast band. Allowing this would inhibit the formation of large contiguous blocks of spectrum. To minimize the number of digital broadcast stations that may need to be moved to new channels to facilitate the creation of large contiguous blocks of VHF and/or UHF spectrum, it will likely be necessary for us, not the licensee, to determine which 6 MHz channel the broadcaster must use for digital transmission and which channel must be surrendered. Also, we believe that by making these decisions early we can aid broadcasters in their investment decisions.

60. In order to create the maximum amount of contiguous spectrum following the transition period, it may be necessary to move some digital broadcast stations to new channels. We recognize that there are costs associated with moving stations to new channels. We request comment on the benefits and costs of moving stations to new channels. We also seek comment on how to minimize the costs of moving stations to new channels. Finally, we ask parties to comment on whether each broadcaster should pay for its own move, whether all broadcasters should pay for the costs of relocation, or whether the licensee that bumps the broadcaster should pay to move the broadcaster, as was done in the emerging technologies band for PCS.<sup>63</sup>

#### H. Length of Application/Construction Period.

61. Previous Decision In the Third Report/Further Notice we made a preliminary decision concerning the application and construction period that affected the length of the transition period. We granted existing broadcasters three years from the effective date of ATV system selection or an ATV Allotment Table, whichever is later, in which they exclusively may apply for a preferred or "set-aside" ATV channel,<sup>64</sup> and a total of six years to

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<sup>63</sup> See Third Report and Order and Memorandum Opinion and Order in ET Docket No. 92-9 8 FCC Rcd 6589 (1993)

<sup>64</sup> Second Report/Further Notice, *supra* at 3346; Third Report/Further Notice, *supra* at 6937-40. Other parties would also be able to apply for ATV facilities if they were to find a

both apply for and construct an ATV facility.<sup>65</sup>

62. We previously stated that such factors as the time needed to raise the necessary capital to invest in ATV technology, to plan for the creation of a new station, including, in some cases, having to locate a new transmitter site, and to allow ATV equipment to become available, required that we establish these application and construction periods.

63. Proposal. We propose to establish a procedure by which broadcasters have six months in which to make an election and confirm to the Commission that they want an ATV license. After that, they would have the remainder of the three-year period in which to supply supporting data as we may require. If they elect not to construct an ATV facility, or elect to construct but do not proceed to do so, their NTSC licenses will expire at the end of the ATV conversion period and they will have to cease broadcasting. This process would have the benefit of identifying early on locations where existing broadcasters do not want to transition to ATV and where applications from new entrants for ATV stations could therefore be considered.

64. We ask that commenters address all aspects of the construction period. Is the current six-year period appropriate, too long, or is it insufficient? We believe that the exclusive eligibility period can be shortened, primarily by requiring licensees to make an election within the first six months after the adoption of an ATV standard or final Table of Allocations, whichever is later, as to whether to convert.<sup>66</sup> This should not place an undue burden on licensees. Broadcasters have now been on notice for a number of years of the general direction in which we are moving toward digital television and some, we understand, have begun planning in earnest for the transition. Moreover, much digital broadcasting equipment has been developed and demonstrated. Commenters should provide information on their ability to apply for and construct ATV facilities and discuss the difficulties they would have in meeting a shorter time frame.

65. Nevertheless, we are mindful of the difficulties to be encountered by television broadcasters converting to ATV. Sources of financing may be limited and their willingness to support the conversion is unknown. For some stations tower sites may need to be found, leases negotiated and towers built. Equipment will have to be purchased and installed, and the capacity of industry to supply over 1500 broadcasters<sup>67</sup> with new equipment, from cameras to transmitters to antennas, all within the same time frame is not currently known. Given the

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new allotment and get the Table of Allotments amended accordingly.

<sup>65</sup> Third Report/Further Order, *supra* at 6938-39.

<sup>66</sup> See, "Length of Application/Construction Period," *supra*.

<sup>67</sup> As of May 31, 1995, there were 1539 full service television stations licensed. "Broadcast Station Totals as of May 31, 1995," Mimeo No. 54516, June 23, 1995.



different aspect ratio for ATV as opposed to NTSC, new studio sets may have to be designed and constructed in order for stations to originate programming. We fully appreciate that this transition will not be an easy task. Accordingly, we request comment on the practical difficulties licensees will have in successfully undertaking the conversion and on proposed solutions.

## I. Small Markets

66. Previous Decision In the Third Report/Further Notice, we decided not to adopt a "staggered approach" to initial ATV implementation with large markets required to implement first and small markets last.<sup>68</sup> While recognizing that small market stations produce less revenue than those in large markets, adversely affecting their ability to finance the transition, we also noted that our extension of the application/construction period to a total of six years, and our "sliding scale" approach<sup>69</sup> should provide small market stations adequate relief. Moreover, we noted that, "[e]ven in the smallest markets, industry figures show that the most profitable group of stations, which accounted for one quarter of all stations, made an average of \$923,495 in pre-tax profits in 1990," whereas, "[i]n contrast, even in the top ten markets, the bottom quarter stations lost money on average." (Footnote omitted.)<sup>70</sup> This suggested to us that a staggered approach based on market size alone would not necessarily target the correct stations. Nevertheless, we indicated that if the application/construction period appeared insufficient, we could adjust it at later reviews.

67. Changed Circumstances and Request for Comments. We now seek comment on whether we should reconsider this decision, and if so, on what type of relief should be provided from the six year deadline and to whom? For example, should there be a general extension of the deadline for a certain class of stations? If so, for how long and to whom? Should it be to stations that make a showing of financial hardship and if so how would that be defined? Should there be a different rule for small markets? What about stations serving economically disadvantaged areas? How should "small markets" or "economically disadvantaged areas" be defined? Commenters should address whether such a general

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<sup>68</sup> Third Report/Further Notice, *supra* at 6946.

<sup>69</sup> Under the sliding scale approach, parties applying early in the six-year application/construction period would have the remainder of the application period and the full three-year construction period in which to construct. Thus, they would have a longer time to devote to construction of ATV facilities than those applying later. This, we stated, "should permit those applying early additional time to cope with any unforeseen problems that arise." Third Report/Further Notice, *supra* at 6939. Should we adopt our proposal to require an election by the end of the sixth month, licensees filing earlier in the remaining two-and-one-half years would still have more time in which to construct than those filing later in that period.

<sup>70</sup> Third Report/Further Notice, *supra* at 6947.